NWS FORM E-5

U.S. DEPARTMENT OF COMMERCE NOAA. NATIONAL WEATHER SERVICE

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

TO: NATIONAL WEATHER SERVICE (W/OH12x1) HYDROMETEOROLOGICAL INFO CENTER 1325 EAST-WEST HIGHWAY, RM 7116 SILVER SPRING, MD 20910

HSA OFFIC	E:
Marquette,	МІ

REPORT FOR (MONTH/YEAR):

April 2014

DATE: **June 3, 2014**

SIGNATURE:

Robin J. Turner, MIC Justin Titus, Meteorologist

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (WSOM E-41).

An X inside this box indicates no flooding occurred within this Hydrologic Service Area.

April Flooding

Historically cold temperatures during the 2013-2014 winter season left many rivers with ice cover significantly thicker than normal. With snowmelt from warming temperatures in April, increased runoff through the rivers of Upper Michigan caused a breakup of the ice cover. Several ice jams of varying magnitude were noted in river stage data across the area. The only ice jams with reported impacts were in Delta County, mainly on the Escanaba and Tacoosh Rivers near Escanaba and Rapid River, respectively. The most significant ice jam occurred on the Escanaba River between the city of Cornell and "Dam #2" which is just upstream of the city of Escanaba. The jam caused rapid and extensive fluctuations on the Escanaba River, resulting in at least one water rescue needed from a house that lost a propane tank and ended up with massive pieces of ice surrounding the house after water levels subsided. However, no significant structure damage was noted. Ice jamming on the Tacoosh River was more minor with no structural impacts reported to the National Weather Service. Along the Tacoosh River, there was some minor flooding across US-2 in Rapid River, and possibly some smaller roads.

Typical Snowmelt flooding occurred along the Sturgeon River near the cities of Alston and Chassell late in the month. The river rose out of its banks, and technically exceeded minor flood stage near Chassell, but no significant impacts were noted.

April Precipitation

April precipitation was above to well above normal.

Below is a chart of some of the larger cities in the Upper Peninsula, with monthly precipitation in inches, the amount of inches above or below normal for the month and any applicable record high or low rank.

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Location	Precipitation	Above/Below	Rank	Snowfall	Above/Below	Rank
WFO Marquette	4.45	1.44	9 th	35.8	21.3	4 th
Marquette City	Missing			24.2	16.7	8 th
Houghton Airport	No Data			No Data		
Ironwood	4.05	1.41		34.7	23.3	3 rd
Iron Mountain	3.53	1.17		14.6	10.0	9 th
Manistique	3.50	1.11		10.0	No Data	6 th
Munising	3.98	1.78		18.3	10.7	8 th
Newberry	3.68	No Data		11.3	No Data	
Ontonagon 6SE	2.68	0.42		20.0	13.1	4 th

Other monthly precipitation totals from coop observers:

Location	Precipitation	Snowfall
	(inches)	(inches)
Alberta (Baraga County)	4.05	36.0
Amasa (Iron County)	2.54	18.0
Atlantic Mine (Houghton County)	5.57	51.0
Baraga 7NW (Baraga County)	2.31	33.5
Big Bay (Marquette County)	3.59	25.6
Chatham (Alger County)	3.32	18.4
Clarksburg (Marquette County)	1.67	24.2
Cooks (Schoolcraft County)	2.36	5.1
Copper Harbor (Keweenaw County)	2.44	10.4
Garden Corners (Delta County)	3.62	12.3
Gladstone (Delta County)	3.39	13.4
Greenland 6N (Ontonagon County)	3.81	27.3
Gwinn (Marquette County)	2.05	14.0
Harvey (Marquette County)	1.45	7.5
Herman (Baraga County)	3.59	44.5
Jacobsville (Houghton County)	3.36	22.1
Mohawk (Keweenaw County)	4.45	29.8
Menominee (Menominee County)	1.74	2.4
Norway (Dickinson County)	3.46	15.6
Paulding (Ontonagon County)	M	M
Stambaugh (Iron County)	3.96	22.4
Watton (Baraga County)	3.75	28.0

Drought Discussion

The April 29, 2014 release of the U.S. Drought Monitor continued to indicate no drought conditions across Upper Michigan. For the latest drought status, please go to http://www.crh.noaa.gov/mqt/?n=drought.

April Temperatures

Below is a table of some of the larger cities in the Upper Peninsula, with average monthly temperature and number of degrees above or below normal for the month, and the rank of an all-time warmest or coldest month, where applicable.

Location	Temperature	Above/Below	Rank
	(degrees)		
WFO Marquette	33.1	-4.8	7^{th}
Marquette City	35.2	-4.9	
Houghton Airport	33.0	-5.0	
Ironwood	33.5	-5.8	9 th
Iron Mountain	36.9	-4.6	
Manistique	34.0	-4.8	6 th
Munising	33.8	-5.2	
Newberry	34.8	-3.6	
Ontonagon 6SE	36.6	-5.3	5 th

April River Levels

According to the United States Geological Survey, April average streamflow across Upper Michigan was normal (25-75 percentile) in all but the Manistique River basin, where much above normal (>90 percentile) was observed.

April Products Issued

- 22 Flood Statement
- 4 Hydrologic Statement
- 30 Hydrologic Summary
- 1 Hydrologic Outlook